IN THE CLAIMS:

Please amend claim 24 as follows:

1. (Previously Presented) A system connecting multiple repeaters into a single collision domain comprising:

a first repeater having a plurality of network ports and stack connectors;

a second repeater having a plurality of network ports and stack connectors; and

a stacking bus connecting said first repeater via said stack connectors of said first repeater to said second repeater via said stack connectors of said second repeater and configured to relay carrier signals, collision signals and data between said first and said second repeaters, wherein said first repeater is configured to send said collision signal to itself.

2. (Original) The system according to claim 1 wherein said first repeater is configured to detect a collision across its plurality of network ports and send a collision signal to said second repeater via said stacking bus.

3. (Original) The system according to claim 2 wherein said first repeater is configured to send said collision signal to itself via a two-way pin at the same time that it sends said collision signal to said second repeater via said stacking bus.

4. (Original) The system according to claim 1 wherein said stacking bus includes a 5-bit databus.

5. (Original) The system according to claim 3 wherein said stacking bus includes a 5-bit databus.

6. (Original) The system according to claim 1 wherein said first repeater is configured to run 100MB Ethernet.

7. (Original) The system according to claim 3 wherein said first repeater is configured to run 100MB Ethernet.

8. (Original) The system according to claim 7 wherein said first repeater includes a 10/100 MB bridge.

9. (Previously Presented) The system according to claim 3 wherein said first repeater includes an internal circuit allowing said first repeater to repeat a signal to itself and said stacking bus at substantially the same time.

10. (Original) The system according to claim 1 wherein said first repeater is configured to detect a collision when it receives a signal via one of said plurality of network ports and a carrier signal via said stacking bus at the same time.

11. (Currently Amended) The system according to claim 10 wherein said first repeater is configured to generate a collision signal upon said detection and send said collision signal to

itself at the same time that it sends said collision signal to said second repeater via said stacking bus.

12. (Original) A repeater comprising:

a master repeater circuit having a plurality of physical ports, a plurality of pins for sending and receiving signals, and being configured to send and receive signals via said physical ports and pins;

at least one slave circuit having a plurality of physical ports, a set of pins for sending and receiving signals, and being configured to send and receive signals via said physical ports and pins;

a local bus connecting said master circuit to said at least one slave circuit such that said master circuit can receive local status signals from said at least one slave circuit,

an upper stack connector for transmitting data and status signals;

a lower stack connector for transmitting data and status signals;

a two-way buffer for receiving and driving data;

a data bus connecting said master circuit and said at least one slave circuit to each other and to said two-way buffer;

a system bus connecting said master circuit to said at least one slave circuit such that said master circuit can send system status signals to said at least one slave circuit; and

a stacking bus connecting said master circuit to said upper stack connector and said lower stack connector and connecting said buffer to said upper stack connector and said lower stack connector such that status signals are transmitted to and from said master circuit to and from said

stack connectors, and data to and from said master circuit and said at least one slave circuit is received from and sent to said stack connectors.

13. (Original) The system according to claim 12 wherein said master circuit is configured to detect a collision across its plurality of physical ports and send a collision signal to said at least one slave chip via said system bus.

14. (Original) The system according to claim 12 wherein said master circuit is configured to send said collision signal to said upper and lower stack connectors via said stacking bus.

15. (Original) The system according to claim 12 wherein said upper and lower stack connectors are 12 pin connectors.

16. (Original) The system according to claim 12 wherein said master circuit and said at least one slave circuit comprise 10/100MB dual mode Ethernet repeater chips.

17. (Original) The system of claim 12 wherein said at least one slave chip is configured to detect a collision across its plurality of parts and send a first collision signal to said master circuit via said local bus, said master circuit being configured to send a collision signal to said stacking bus upon receiving said first collision and to itself at the same time.

18. (Original) The system according to claim 17 wherein said master circuit is configured to send a system collision signal to itself and to said at least one slave circuit via said system bus when said master circuit receives said second collision signal.

19. (Original) The system according to claim 17 wherein said pins of said master circuit and said pins of said at least one slave circuit include a first group of pins and a second group of pins, said first group of pins for sending and receiving data packets to and from said data bus and said second group of pins for sending and receiving status signals between said master and slave circuit's via said local bus and said system bus.

20. (Original) The system according to claim 12 wherein said master circuit and said at least one slave circuit are configured to run according to a 100MB Ethernet protocol running a 25 MHz clock, and said data bus includes a 5-bit databus.

21. (Original) The system according to claim 19 wherein said master circuit and said at least one slave circuit are configured to run according to a 100MB Ethernet protocol running a 25 MHz clock, and said data bus includes is a 5-bit databus.

22. (Original) The system according to claim 12 wherein said master circuit and said at least one slave circuit are configured to run according to a 10MB Ethernet protocol running a 10 MHz clock, and said data bus includes a 1-bit data bus.

23. (Original) The system according to claim 19 wherein said master circuit and said at least one slave circuit are configured to run according to a 10MB Ethernet protocol running a 10 MHz clock, and said data bus includes a 1-bit databus.

24. (Currently Amended) A method for expanding a collision domain comprising the steps of:

determining if a collision exists at a repeater within a plurality of repeaters coupled to a stacking bus; ~~and~~

if a collision exists, at said repeater, sending a collision signal to every repeater within said plurality of repeaters via said stacking bus, each repeater of said plurality of repeaters being configured to generate and send a jamming pattern to physical ports thereof upon receiving said collision signal and

sending, by the repeater determined to have the collision, a collision signal to itself.

25. (Original) The method according to claim 24 wherein said stacking bus carries a clock signal, a databus, an data enable signal, a system carrier signal and a system collision signal.

26. (Original) The method according to claim 25 wherein said clock signal is 25 MHz and said databus is 5-bit wide.

27. (Previously Presented) The method according to claim 24 wherein said determining if a collision exists step further comprises the step of:

at said repeater, determining if more than one data packet has been received simultaneously at any of a plurality of ports of said repeater, and

if more than one packet has been received simultaneously at said plurality of ports, determining that a collision exists.

28. (Original) The method according to claim 24 wherein each said repeater of said plurality of repeaters is configured to send a carrier signal to said stacking bus when a signal is received at any of said plurality of ports said determining if a collision exist step further comprises the step of:

at said repeaters, determining that a collision exists when a carrier signal is received from said stacking bus at the same time a signal is received at any port of said repeater determining a collision exists.

29. (Original) The method according to claim 25 wherein said clock signal is 10 MHz and said databus is 1-bit wide.

30. (Original) The method according to claim 25 wherein each said repeater further comprises a plurality of repeater circuits including one master circuit, connected via a local bus, wherein said collision signal is a system collision signal and each repeater of said plurality of repeaters is configured to receive said system collision signal from said stacking bus and comprising the following steps:

at each said master circuit, sending a local collision signal to said plurality of repeater circuits within each said repeater of said plurality of repeaters via said local bus, each said

repeater circuit having physical ports and being configured to send a jamming pattern via said physical ports of each said repeater circuit upon receiving a local collision signal.

31. (Original) In a repeater system comprising a first repeater and a second repeater, said first and second repeaters comprising a master circuit and a slave circuit connected via a local bus and a system bus, said master circuit and said slave circuit each having physical ports connected to a network, and said master circuit of said first repeater and said master circuit of said second repeater each being connected to a stacking bus via a stacking connector, a method for expanding a collision domain comprising the following steps:

receiving a network signal at a physical port of a slave circuit of said first repeater from said network;

sending a local carrier signal to said master circuit of said first repeater via said local bus;

at said master circuit of said first repeater, upon receiving said local carrier signal, simultaneously sending a second carrier signal to said master circuit of said second repeater via said stacking bus and to itself;

each said master circuit upon receiving said system carrier signal, simultaneously sending a system carrier signal to each said slave circuit and to itself via said system bus upon receiving said system carrier signal; and

each said master circuit and said slave circuit repeating said network signal to each physical port.

32. (Original) The method according to claim 31 wherein said stacking bus

includes a clock signal, a databus for transferring signals, a data enable signal, a system carrier signal and a system collision signal, and said databus is coupled to each chip within said first and second repeater via a an internal databus.

33. (Original) The method according to claim 32 wherein said clock signal is 25 MHz and said databus and said internal databus are 5-bit wide.

34. (Original) The method according to claim 32 wherein said clock signal is 10 MHz and said databus and said internal databus are 1-bit wide.

35. (Original) The method according to claim 31 wherein each said master circuit is configured to collect carrier signals from said stacking bus and said corresponding local bus and detect a collision if said master circuit receives a carrier signal from said local bus and said stacking bus at the same time.

36. (Original) The method of claim 35 wherein each said master circuit is further configured to detect a collision when it receives a carrier signal from any one of said stacking bus and said local bus and a signal at a port of said master circuit at the same time.

37. (Original) The method of claim 36 further comprising the steps of:

at said master chip of said first repeater, receiving a carrier signal from said stacking bus an said local bus at the same time;

at said master chip of said first repeater, generating a first collision signal and sending said first collision signal to said stacking bus and to itself at the same time; and

at each said master circuit, generating a system collision signal and sending said system collision signal to said slave circuit and to itself via said system bus at the same time.

38. (Original) In a repeater system repeater system comprising a first repeater and a second repeater, said first and second repeaters having a master circuit and a slave circuit connected via a local bus and a system bus, said master circuit and said slave circuit each having physical ports connected to a network, said master circuit of said first repeater and said master circuit of said second repeater each being connected to a stacking bus via a stacking connector, a method for expanding a collision domain comprising the following steps:

receiving two network signals at two physical ports of said slave circuit of said first repeater from said network;

at said slave circuit of said first repeater, determining that a collision exists;

at said slave circuit of said first repeater, sending a local collision signal to said master circuit of said first repeater via said local bus;

at said master circuit of said first repeater, upon receiving said local collision signal, simultaneously sending a second collision signal to said master circuit of said second repeater via said stacking bus and to itself;

each said master circuit upon receiving said second collision signal, simultaneously sending a system collision signal to each said slave circuit via said system bus and to itself; and

each said master circuit and each said slave circuit upon receiving a system collision signal, sending a jamming pattern to each physical port according to an Ethernet standard.

39. (Original) The method according to claim 38 wherein said stacking bus includes a clock signal, a databus for transferring signals, a data enable signal, a system carrier signal and a system collision signal, and said databus is coupled to each circuit within said first and second repeater.

40. (Original) The method according to claim 39 wherein said clock signal is 25 MHz and said databus and said internal databus are 5-bit wide.

41. (Original) The method according to claim 39 wherein said clock signal is 10 MHz and said databus and said internal databus are 1-bit wide.

42. (Original) The method according to claim 38 wherein each said master circuit sends said system collision signal via a two-way pin, which is pinned to itself.

43. (Original) The method according to claim 38 wherein each said master circuit sends said local system collision signal via a two-way pin, which is pinned to itself.